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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,742	05/08/2006	Toshio Sunaga	JP920030200US1	4737

24241 7590 09/19/2008

IBM MICROELECTRONICS
INTELLECTUAL PROPERTY LAW
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EXAMINER

PHAM, LY D

ART UNIT	PAPER NUMBER
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2827

MAIL DATE	DELIVERY MODE
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09/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,742	SUNAGA ET AL.	
	Examiner	Art Unit	
	LY D. PHAM	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/08/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 6 are pending.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered first claim has been numbered claim 1.

3. Claim 3 is objected to because of the following informalities:

In **claim 3**, last line, "... *in order asynchronously* ..." is believed to mean, and will be assumed, for the purpose of examination, as "... **in order synchronously**...", as is observed in parallel method claim 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1 – 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites a semiconductor memory (an apparatus claim) comprising “*activating said sense amplifiers using a sense amplifier enable signal*”, which is a method step of using the product.

This is considered as a “product and process in the same claim”. See **MPEP 2173.05(p)**.

Appropriate correction is required in order to overcome this type of rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujisawa et al. (US Pat Pub 2004/0004890).

Regarding **claims 1 and 4**, Fujisawa et al. discloses a semiconductor memory and its corresponding burst operation method (figs. 1 – 11) for the semiconductor memory having data I/O buses (referred to as I/O lines, paragraphs 0003, 0005 – 0008, 0041, etc...), a plurality of latch circuits connected in common to each of said data I/O buses (referred to as buffer circuits, paragraphs 0046, 0055, 0070, 0087, 0114, 0118,

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0119), and a memory cell array (fig. 1, 2), in which said memory cell array includes a plurality of bit line pairs (paragraphs 0059, 0071, see also fig. 6B), a plurality of bit switches (referred to as column select switches activated by column select lines YS#, paragraph 0059) connected between said plurality of latch circuits and said plurality of bit line pairs and divided into a plurality of groups (referred to as two sub blocks 0 and 1 for each of the four banks, fig. 2A), a plurality of column selection lines (YS# indicated above) provided so as to correspond to said plurality of groups and each of which is connected to a plurality of bit switches included in the corresponding group, and a plurality of sense amplifiers (paragraph 0042, 0044 – 0046, 0048, 0058 – 0118) connected to said plurality of bit line pairs, the burst operation method comprising the steps of:

activating said sense amplifiers (paragraph 0026, 0048, claim text 15); and
driving two or more of said column selection lines in order during activation of said sense amplifiers (paragraphs 0026, 0048, wherein eight sense amplifiers are activated simultaneously with activation of 4 column selector lines).

As per **claims 2 and 5**, the step of selecting the block is considered inherent as it must be the case before the respective sense amplifiers are activated with the corresponding block columns, which are simultaneously activated.

As per **claims 3 and 6**, Fujisawa et al. also disclose the semiconductor memory operates in synchronization with an external clock (paragraph 0049, 0070); and

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said two or more of the column selection lines are driven in order synchronously with the external clock in said column selection line driving step (paragraph 0070, "... data synchronizes with the front edge of a clock...", and also paragraph 0073).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See also references additionally cited for features and disclosures considered relevant to the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LY D. PHAM whose telephone number is (571)272-1793. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ly D Pham/
Primary Examiner, Art Unit 2827
September 12, 008